

Exhibit B

10/11/2016

Lonestar Technological Innovations, LLC, v. Acer, INC., et al.

Yaron Menczel

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

TELEPHONE DEPOSITION OF YARON MENCZEL
October 11, 2016

LONESTAR TECHNOLOGICAL
INNOVATIONS, LLC,

Plaintiff,

v.

ACER, INC. and
ACER AMERICA CORPORATION,

Defendants.

LONESTAR TECHNOLOGICAL
INNOVATIONS, LLC,

Plaintiff,

v.

SHARP ELECTRONICS
CORPORATION,
Defendant.

Civil Action No.
6:15-cv-00973-JRG-JDL

LEAD CASE
JURY TRIAL DEMANDED

Civil Action No.
6:15-cv-00972-JRG-JDL

CONSOLIDATED CASE
JURY TRIAL DEMANDED

Pursuant to Notice and the Federal Rules of
Civil

Procedure, the telephone deposition of YARON MENCZEL,
taken by the Acer Defendant, was held at 1400 Wewatta
Street, Suite 600, Denver, Colorado, 80202, on
Tuesday, October 11, 2016, at 9:03 a.m., before Jason
T. Meadors, RPR, CRR, CRC, and Notary Public.

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19

Also Present:

20 Ken Fung (by telephone)

21

22

1 YARON MENCZEL,

2 having been first duly sworn to state the whole truth,
3 was examined and testified as follows:

4 EXAMINATION BY MR. TING:

5 Q Good evening for you, Dr. Menczel. How are
6 you doing?

7 A Good. Thank you.

8 Q Before we begin, how do I pronounce your
9 last name?

10 A Menczel.

11 Q Menczel?

12 A Yeah. Good.

13 Q Okay. Good. So can you please state your
14 complete name for the record?

15 A Dr. Yaron Menczel.

16 Q Okay. And I understand that you're located
17 in Israel today; is that correct?

18 A That is correct.

19 Q Are you an Israeli citizen?

20 A I am.

21 Q Are you also a U.S. citizen?

22 A I am so.

1 done to formalize the step 9 of the patent, which is
2 the formula. The CR of the output is equal to the
3 summation of V1 times LUT 1 of the input number plus
4 UL times LUT2 of the 1 input CB by W1. Similarly, the
5 output CB is equal to the summation of V2, LUT3 of
6 input CR out by U2, U2, LUT4, input CB to W2. Being
7 C, these formulas that they put 14, you get 42.

8 Q Okay. Let's use -- let's discuss -- let's
9 use look-up table 1 as an example. Look-up table 1 as
10 discussed in the '012 Patent will receive a particular
11 input color component; is that correct?

12 A Yes.

13 Q That is the input to look-up table 1,
14 correct?

15 A Yeah. If it's here. . .

16 Q And the output of look-up table 1 will be a
17 particular color component; is that correct?

18 A No. It will be --

19 Q What is the output --

20 A This is some kind of permitted number to be
21 used in a complex formula.

22 Q Okay. So your position is that the output

1 of look-up table 1 is not a particular color
2 component.

3 A Correct.

4 Q Okay. Does look-up table 1 provide a
5 specific output based on a specific input?

6 A Correct.

7 Q That is correct?

8 A Yeah. It has nothing to do with colors.
9 The input is colors. The output is not colors.

10 Q Okay. But for any given input, there will
11 be a specific output, a single -- sorry. Let me
12 rephrase.

13 For any given input to look-up table 1,
14 there will be a single and specific output; is that
15 correct?

16 A Correct.

17 Q Okay. Now, is that true for look-up tables
18 2, 3, and 4 as well?

19 A Correct.

20 Q Okay. Could you take a look at paragraph
21 21.

22 A I do.

1 Q Okay. So you state the four look-up tables
2 that contain complex formulas far exceed simply
3 mapping an input color to an output individual color,
4 correct?

5 A Correct.

6 Q Okay. But do you agree with Dr. Richardson
7 that the function of the look-up tables ultimately is
8 to map an input color to an output individual color?

9 A No.

10 MR. LEE: Objection. Form.

11 A To say that something is used in the middle
12 of a process doesn't mean it's the process.

13 Q (By Mr. Ting) Okay. But the look-up tables
14 are used to map an input color to an output individual
15 color, correct?

16 A In a complex way.

17 Q Sorry. Could you repeat that last question?

18 A In a very complex way.

19 Q In a complex way. But it is mapping input
20 color to an output individual color, correct?

21 A The only -- my car is used to drive it. In
22 that particular way. Now there is LUTs in the

1 process. That is the point of my answer.

2 Q I'm sorry. Can you repeat that last answer?

3 A There is only in my answer -- somehow used
4 for my -- driving my car.

5 Q Could we go with that one more time? The
6 reporter didn't get it.

7 A I said the LUTs are used in the process but
8 a very complex way.

9 Q The LUTs are used --

10 A And I give an example that a car engine has
11 oil. It is used as part of the driving -- the part of
12 making the car drive. It's complicated how it -- how
13 the oil comes in, how the car moves. Similarly, these
14 two pieces. They do not map color to output
15 individual color. They are used in the process.

16 Q (By Mr. Ting) Okay. So is it fair to say
17 that the four look-up tables, look-up tables 1 through
18 4, they utilize complex formulas in order to map an
19 input color to an output individual color; is that
20 correct?

21 A Not -- no, it's not correct.

22 Q What's incorrect about that?

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1 A They are used in the process, but they don't
2 do mapping of input color to an output individual
3 color.

4 Q And why don't they do mapping?

5 A As I said, it's a formalized step 9. The
6 formula of step 9 says how exactly the output colors
7 are decided. For instance, there is a color V1 which
8 totally changes it. Without V1, you do not have a
9 color. So you cannot say that the four LUTs are used
10 to give you a color.

11 If you don't know the V1, U1, W1, V2, U2,
12 W2, you cannot get an output color. So it's wrong to
13 say it's a mapping from one color to color, because
14 it's not correct. There are other things. I give the
15 example of the engine. There is oil and there is gas.
16 Another thing. I sure there's 20 pistons. But there
17 are a lot of things that make the engine work.

18 There are a lot of things that make the
19 output individual color happen, the four LUTs happen
20 to be one of them, not the entire stuff.

21 Q Okay. So where does color -- where does V1
22 come from?

1 A Constant.

2 Q Did you say constant?

3 A Uh-huh.

4 Q So is it fair to say that inputting a color
5 into the look-up tables will result in an output of a
6 single and specific individual color?

7 A No.

8 Q And is that because of the complex formulas
9 you discussed?

10 A Correct.

11 Q And is it your opinion that the complex
12 formulas are a part of the look-up tables?

13 A No. Look-up table are used as part of the
14 formulas. Not the other way around.

15 Q Okay. So the look-up tables are involved in
16 helping to map an input color to an output individual
17 color, correct?

18 A That's correct.

19 Q All right. So turning now to your
20 declaration, if you can turn to page 7 of your
21 declaration.

22 A Yeah.

1 Q Okay. So let me backtrack real quick. So
2 take a look at paragraph 21.

3 A I'm there.

4 Q You state the four look-up tables, LUT1
5 through LUT4, that contain complex formulas far exceed
6 simply mapping an input color to an output individual
7 color. Do you see that?

8 A I see it.

9 Q So when you state that the four look-up
10 tables contain complex formulas, was that an incorrect
11 statement?

12 A It could -- now, it is a correct statement,
13 but it's not the entire statement, because they're
14 used in a complex formula. If I --

15 Q Okay. So --

16 A I'll rewrite it a little differently because
17 they're used in -- the correct -- contain the correct
18 formula, but they're always used in complex formulas.
19 So I'm basically looking at 21.

20 Q So can you just give me the full sentence
21 how you would rewrite it?

22 MR. LEE: Objection. Form.

1 Q And you're referencing paragraph 26,
2 correct, for the citation?

3 A Yes.

4 Q Okay. So this is the -- the only use of
5 specification support for your alternate construction
6 are the citations in paragraph 23 and paragraph 26,
7 correct?

8 MR. LEE: Objection. Form.

9 Q (By Mr. Ting) Dr. Menczel, is that correct?

10 A Correct.

11 Q Can you please turn to paragraph 26.

12 A I'm there.

13 Q Do you see in the middle of paragraph 26
14 where you write: But, Dr. Richardson's analysis is
15 erroneous because a portion of the specification cited
16 by Dr. Richardson concerns a nonlimiting, preferred
17 embodiment, the YCBCR color space. Do you see that?

18 A I do.

19 Q What do you mean by "nonlimiting preferred
20 embodiment"?

21 A Specification, as I understand them, I'm not
22 a lawyer, give examples of how to make the -- how to

1 make the method. Specific way to make the methods.

2 But there can be many of them. We do not have to --

3 we do not have to list or enumerate every possible way

4 of implementing the method. So this one is the method

5 of embodiment, probably preferred, but definitely not

6 limited. There may be others.

7 Q Okay. Now, you do not identify anywhere in

8 the '012 Patent where the specification describes how

9 the method of the present invention is applicable to

10 other formats other than the YCBCR color space; is

11 that correct?

12 MR. LEE: Objection. Form.

13 A I think you are right. It's only described

14 in the YCBCR.

15 Q (By Mr. Ting) Okay. So is it fair to say

16 that the '012 Patent specification only teaches a

17 person of ordinary skill in the art how to implement

18 its method in the YCBCR color space; is that correct?

19 MR. LEE: Objection. Form.

20 A It's an example, but it says -- and I would

21 say, that the method of the pertinent invention is

22 applicable to other formats.

1 Q (By Mr. Ting) Right. It states that the
2 method of the present invention is applicable to other
3 formats, but it doesn't actually teach how the method
4 would be implemented in other formats; is that
5 correct?

6 MR. LEE: Objection. Form.

7 A I guess, but you know, there are many
8 formats. There could be more than a thousand formats.
9 You do not expect to match specification with every
10 possible format.

11 Q (By Mr. Ting) Okay. But in this particular
12 instance, the only format that the patent teaches how
13 to implement -- let me rephrase the question.

14 But the '012 Patent only teaches how to
15 implement
16 its method in the YCBCR color space, correct?

17 MR. LEE: Objection. Form.

18 A It gives an embodiment in the YCBCR color
19 space.

20 Q (By Mr. Ting) Okay. And there's no other
21 embodiments about any other color spaces, correct?

22 A Correct.

1 Q Okay. And the patent does not actually
2 describe how the method is to be applied to other
3 formats, correct?

4 A It doesn't give an embodiment in other
5 formats.

6 Q Okay. So it does not have that description,
7 correct?

8 A For -- there's no embodiment for other
9 formats.

10 Q Okay. And nowhere in your declaration do
11 you explain how the patented method would be
12 applicable to other formats, correct?

13 A I would not -- this is not part of the term
14 construction.

15 Q Okay. So the answer is no, correct?

16 A Correct.

17 Q Okay. Now, the term chromatic components.
18 That's not limited to the YCBCR color space; is that
19 correct?

20 A No. It's not limited.

21 Q Okay. So, for example, are you familiar
22 with YUB, the YUB color space?

1 A Yes.

2 Q And you understand that chromatic components
3 are used to refer to the UB portion of YUB, correct?

4 A Correct.

5 Q And are you also familiar with the YIQ color
6 space?

7 A I do.

8 Q And the term chromatic components refers to
9 the IQ portion of YIQ; is that correct?

10 A Correct.

11 Q Okay. So your only disagreement with the
12 defendant's proposed construction is because you
13 believe that defendant's and Dr. Richardson are only
14 analyzing one embodiment in the patent; is that
15 correct?

16 MR. LEE: Objection. Form.

17 A That -- they are making a conclusion based
18 on the fact there is only one embodiment of YCBCR to
19 define many -- the get a conclusion that simply works.

20 Q (By Mr. Ting) Okay. Now, Dr. Richardson's
21 analysis of this claim term is correct for that
22 embodiment that discusses the -- that you refer to as

1 the YCBCR color space embodiment, correct?

2 A But the specification is not on that -- is
3 not on that color space. The specification is general
4 for every color space. So the question is -- is
5 irrelevant.

6 Q Okay. Whether -- regardless of whether you
7 believe my question is irrelevant, is Dr. Richardson's
8 analysis of this claim term correct for the one
9 embodiment that is disclosed?

10 MR. LEE: Objection. Form.

11 A We're not doing a claim on one embodiment.

12 Q (By Mr. Ting) Okay. So in your
13 declaration, you do not dispute that Dr. Richardson's
14 analysis is correct for that one embodiment. Is that
15 correct?

16 A I dispute it.

17 Q Why do you dispute that his analysis
18 incorrect for that one embodiment?

19 A Because he put words into the claim that are
20 not good. Like he used the word chromatic components.
21 It's not part of the claim.

22 Q So you believe that his construction and his

1 opinions are incorrect because he's using words that
2 are not part of the claim; is that correct?

3 MR. LEE: Objection. Form.

4 A He used, in his construction, the word
5 chromatic component. There is no reason to put it in.

6 Q (By Mr. Ting) Okay. Do you see the
7 sentence in the middle of paragraph 26 where you
8 write: But the specification is explicit that patent
9 claims applies to many formats, not just formats that
10 Dr. Richardson seeks to import, followed by a
11 quotation to the '012 Patent. Do you see that?

12 A Uh-huh.

13 Q Okay. What do you mean by formats Dr.
14 Richardson seems to import?

15 A He's trying, I believe, to import a
16 limitation into the claim that is -- basically are not
17 good.

18 Q And you believe that the -- sorry, what is
19 the basis -- what is the language that he uses that
20 you believe is importing other formats?

21 MR. LEE: Objection. Form.

22 A It's chromatic components.

1 Q (By Mr. Ting) Okay.

2 A The chromatic components.

3 Q So chromatic components, correct?

4 A Yes.

5 Q Can you please turn to paragraph 28 of your
6 declaration. This is on page 8 under subsection C for
7 the claim term, color control parameters. Do you see
8 that?

9 A I do.

10 Q Okay. Paragraph 28 through 33 contain the
11 entire sum of your opinions regarding this term; is
12 that correct?

13 A Correct.

14 Q Okay. What is your definition of the term
15 parameter?

16 A We look in the dictionary, so I believe the
17 dictionary, I looked before, and it says a program
18 that is given a constant value for a specified
19 limitation.

20 Q Okay. So in offering your opinion regarding
21 the construction of color control parameters, you took
22 the term and looked it up in a dictionary, correct?

1 A Correct.

2 Q And that's all you did, correct, you went to
3 the dictionary and looked up the term?

4 A For the claim, the word color control
5 parameter is self-understood by a person of ordinary
6 skill in the art. And if it's needed, then I would
7 look the word -- I tried to look for color control
8 parameter. I couldn't find it. I found parameter and
9 this is the value I got for parameter.

10 Q Okay. So to -- sorry.

11 Okay. So to analyze this claim term, you
12 simply

13 took the claim term and tried to look it up in the new
14 IEEE Standard Dictionary of Electrical and Electronic
15 Terms, Fifth Edition, 1993, correct?

16 MR. LEE: Objection. Form.

17 Q (By Mr. Ting) Is that correct, Dr. Menczel?

18 A I said yes.

19 Q Okay. So can you please take a look at
20 paragraph 30. So in paragraph 30, you are relying on
21 the arguments you previously made -- let me rephrase
22 that.

1 Do you see in paragraph 30 where you said,
2 Earlier, I explained how Dr. Richardson attempts to
3 limit claim terms to YCBCR color space, which is
4 erroneous?

5 A I do.

6 Q When you say "earlier," what are you
7 referring to?

8 A The section before, about color component
9 functions. Yes. Section B.

10 Q Okay. So just to clarify, you're referring
11 to your -- the opinions you offered in section B,
12 individual color control functions, correct?

13 A Yes.

14 Q So you have nothing in addition to add
15 beyond that for -- for this term, correct?

16 MR. LEE: Objection. Form.

17 A No, I also say part of 31. Previously, I
18 have already explained the look-up table do not merely
19 contain color input and color output mapping.

20 Q (By Mr. Ting) Okay. So let me rephrase my
21 question.

22 So when you say, Earlier, I explained how

1 Q Okay. So when we're discussing viewer,
2 we're discussing viewer as it's used in claim 17 of
3 the '012 Patent, correct?

4 A Correct.

5 Q Now, can you take a look at claim 17 of the
6 '012 Patent?

7 MR. LEE: '435.

8 Q (By Mr. Ting) I'm sorry, the '435 Patent?
9 Claim 17 of the '435 Patent?

10 A Hold on. '435.

11 Q The '435 Patent, for the record, is Exhibit
12 4. And let me know when you're at claim 17 of the '435
13 Patent.

14 A I'm there.

15 Q Okay. Now, you state that a person -- that
16 one of ordinary skill in the art would understand the
17 meaning of the term viewer; is that correct?

18 A Correct.

19 Q What would a person of ordinary skill in the
20 art understand the term viewer to mean?

21 A Exactly what it says.

22 Q But -- but if I was going to ask you to tell

1 me what the viewer is, what would you say?

2 A Somebody that views.

3 Q Did you say somebody that views?

4 A Uh-huh.

5 Q So a person that views, correct?

6 A Correct.

7 MR. TING: So why don't we take a break. I
8 just want to check my notes. I believe I'm ready
9 to pass the witness. Let me just confirm. Can
10 we --

11 Matt, do we want to take a longer break to
12 let you get ready to take over?

13 MR. HOLOHAN: I think we can just do five
14 minutes. Unless the witness wants longer.

15 MR. LEE: Dr. Menczel, would you like
16 longer?

17 THE WITNESS: Maybe 10, a little longer.

18 MR. TING: Okay. Let's do 10 minutes.

19 MR. LEE: Quick question. Are we getting
20 close to being done on your end? I just know
21 that he's about eight hours ahead of you guys.
22 This is for Matt.

1 MR. HOLOHAN: I think --

2 MR. TING: Yeah, I'm 99 percent certain for
3 Acer that I'm done, so, Matt, I don't know how
4 long you had planned.

5 MR. HOLOHAN: I think my questioning will
6 take an hour at the very longest. Most likely
7 less than that.

8 MR. LEE: Thank you. I appreciate it.
9 Let's take a ten-minute break.

10 THE WITNESS: Okay.

11 (Recess from 11:15 a.m. to 11:25 a.m.)

12 MR. TING: This is Michael Ting. I will
13 pass the witness to Matt Holohan.

14 MR. LEE: And Doctor, you're back?

15 THE WITNESS: I'm back, yes.

16 EXAMINATION BY MR. HOLOHAN:

17 Q All right. Good evening, Dr. Menczel. My
18 name is Matt Holohan. I'm representing Sharp
19 Electronics Corporation. I have a few more questions
20 about some of the other terms that Acer's counsel did
21 not ask you about.

22 I'm going to be jumping around a little bit

1 regular red.

2 Q (By Mr. Holohan) Okay. So focusing on
3 defendant's proposed alternate construction for
4 individual color, which is the linear combination of
5 base colors, you're saying that even if you were to
6 define a color at a specific linear combination --
7 actually, strike that question.

8 You say, in the regular world, a color
9 defined as
10 a linear combination of base colors would still be a
11 range of colors. But in the digital world, you could
12 actually express a color as a specific linear
13 combination of base colors, right?

14 MR. LEE: Objection. Form.

15 A Again, the issue here was that the -- and
16 the defendant inventor, and the defendant used the
17 word "specific." That was the example that was given.
18 The fire engine red.

19 Okay. We take out the words "specific" in
20 the definition, because the definition is not -- in
21 the second part, with the linear combination of color
22 components, such as red, green, blue, yellow, cayenne,

1 and magenta, it's fine. We'll even be on the same
2 combinations, but other -- other than that, we're
3 saying the same thing. The issue here is, specific or
4 not specific.

5 Q (By Mr. Holohan) Okay. So the only --

6 A And my chosen words of fire engine red, is
7 probably not the best picture of it.

8 Q Okay. So your objection to defendant's
9 proposed construction is just the use of the word
10 "specific." Is that accurate?

11 A Yes.

12 Q Okay.

13 A And -- and component. Still a component.
14 Because as you say, it's particular for the
15 definition, the specification, that it says component.

16 So I say -- I'm going to say, linear
17 combination; could be I meant combinations. Not
18 component. Component is in both -- both
19 constructions.

20 Q Okay. So --

21 A The combination --

22 Q So you say that an individual color needs to

1 be combinations, plural, not a linear combination.

2 A Yes, exactly.

3 Q Okay. But in the specification cites that I
4 just read to you, in column 1 of each patent, it just
5 says, A linear combination of colors or color
6 components, right?

7 A Let me see. Certain linear combination,
8 singular, yes.

9 Q Okay. Can you please -- if you look at
10 pages 13 and 14 of your declaration, can you just tell
11 me where those images that you reproduced in your
12 declaration came from?

13 A Two of them -- two of them. Took them both
14 out to be -- talking about the color spectrum.

15 Q Yes.

16 A The general note. They're coming from the
17 Internet.

18 Q Okay. You just found them on the Internet?

19 A Yes.

20 Q All right. And when you talk about, in
21 paragraph 42, the six corners of the RGB cube, each
22 one of those corners can be defined as a linear

1 A Which are red, blue, yellow, magenta, and
2 cayenne.

3 Q Right. So red, green, blue, yellow --

4 A And here they use the word, linear
5 combinations, plural.

6 Q Okay. So I just want to clarify something.
7 So it says the individual color components
8 are
9 red, green, blue, yellow, magenta, and cayenne, and
10 those have the 255 saturation values, right?

11 A Yes.

12 Q So is an individual color the same as an
13 individual color component?

14 MR. LEE: Objection. Form.

15 A It says in the one you quoted, Color one,
16 herein, and it's '012 patent, in line 19 through 24,
17 herein, and the blue color, present the linear
18 combination of colors or color component. Which from
19 that, my understanding, they're the same thing.

20 Q (By Mr. Holohan) Okay. And then in
21 paragraphs 45 to 49, you talk about equations and the
22 '435 Patent and also adjusts the color components red,

1 green, and blue, right?

2 A From cayenne and magenta and yellow.

3 Q Okay. But it's color components that are
4 being adjusted in those equations, right?

5 A It says color blue.

6 Q Color what?

7 A For limiting it. . . when I -- if we go to
8 the '435, I'm sure we visit the word color component,
9 and it says -- after. . . it says, Identify each input
10 image picture having red, R, as the original color
11 whose hue or saturation was selected to be
12 independently changed. So I don't see the word
13 "component" here.

14 Q Right. But if we -- in the '012 Patent,
15 red, green, and blue, yellow, cayenne, and magenta
16 were individual color components and it's those same
17 -- the same colors that are being manipulated in the
18 '435 Patent in the specification cites you're
19 reporting to, correct?

20 A Yeah --

21 MR. LEE: Objection. Form.

22 A -- I think you need to change the word

1 "component" for "color" for the words there.

2 Q (By Mr. Holohan) I'm sorry. Say that
3 again?

4 A I think you need to change the word "color"
5 for "color component" in both patents.

6 Q So your view is the color and color
7 component are interchangeable in the patents?

8 A Yes.

9 Q Okay.

10 A Yes.

11 Q Do you agree that the term "individual
12 color" should have the same meaning in both the '012
13 and the '435 Patents?

14 A Yes.

15 Q Okay. If you could turn back a few pages to
16 page 10 of your declaration. I want to talk about the
17 term, Whereby all other colors of the digital video
18 input image remain unchanged.

19 Now, the defendant's proposed construction
20 is, Whereby all other pixels of the digital video
21 input image without the same color component values
22 remain unchanged. In your opinion, is that the term

1 should be given its plain and ordinary meaning, or
2 alternatively, whereby all colors of the digital video
3 input image without the same color component values
4 remain unchanged. So would you agree with me that the
5 -- the disagreement between the parties here is the
6 use of the word pixels as opposed to colors?

7 A I think so, yeah.

8 Q Now, in digital video image, colors are
9 expressed as pixels, right?

10 A No.

11 Q How is that incorrect?

12 A Colors are attributes of pixels.

13 Q Colors are?

14 A Attributes of pixels.

15 Q Attributes of pixels. What other attributes
16 of pixels are there besides color?

17 A Luminance.

18 Q Okay. Anything else?

19 A Colors. Luminance. I guess the pixels
20 themselves, by the resolution and depth of field, also
21 do express something.

22 Q Okay. But --

1 A And the number of them and how big they are
2 and other expressions.

3 Q Okay. Is there any way in digital video, in
4 a digital video image, that a color would be expressed
5 other than using a pixel to express the color?

6 A Colors appear in an attribute of pixels.

7 Q Right. So if the --

8 A The perception you get is after you look at
9 many pixels, you get a perception of color.

10 Q All right. So if -- if --

11 A But, again, the colors are not pixels --
12 you're putting words in the claim that is not really
13 there. The claim they write -- to use the word
14 "pixel" is included. He uses the word pixel other
15 places in the claim.

16 Q Right. So --

17 A If he wants to put there -- yes.

18 Q If you're changing a color in a video
19 display, what you're doing is changing the pixels that
20 are expressing that color, right?

21 A If you -- that -- the implementation may use
22 color pixels. But that's implementation only.

1 Q That's implementation only?

2 A Yeah. The document, this implementation,
3 shows you how to take bits, because you have pixels,
4 and change them, either by look-up table or directly,
5 depends in the patent that we are talking.

6 Q What other implementations are there that
7 would allow to you change colors without changing
8 pixels?

9 A There -- there may be. There may not be.

10 But that's not the issue. The issue is what remains
11 in this construction. The construction is, other
12 colors in the digital video input image remain the
13 same. We didn't say pixels remain the same. We said
14 colors remain the same. That's one. I gave you
15 another one. It's luminance. It can make a
16 difference here.

17 Q Okay. But you're not able to identify any
18 implementations in which you could change colors
19 without changing pixels. Is that fair to say?

20 MR. LEE: Objection. Form.

21 A Say it again. If you, what, if you like
22 pixels, you may change -- you may change and not

1 change luminance. And here, we're not talking about
2 luminance. We're talking about colors.

3 Q (By Mr. Holohan) But if you are changing
4 colors, you are changing pixels, right?

5 A A way to implement it is by changing pixels.

6 Q And you're not able to --

7 A But that -- but the method is here that you
8 are not changing other colors. Not other pixels. An
9 example, if you change a pixel and you leave the color
10 as is, but you change the luminance, the pixel has
11 changed, and the color hasn't changed. Okay? In your
12 definition, you -- you took this as a subset of the
13 method. And that's -- of the claim, and that's not
14 what the claim record indicated.

15 Q I understand you can change pixels without
16 changing colors. But when I'm trying to clarify that,
17 and I don't think we're in disagreement on this, is
18 that you cannot change colors without changing pixels.
19 Is that accurate?

20 A Okay. But that -- maybe. But that's not
21 what you're saying. You're saying all other pixels of
22 the video input image without the same color component

1 color orange be affected?

2 MR. LEE: Objection. Form.

3 A Only the colors -- only colors -- only the
4 red color will be affected.

5 Q (By Mr. Holohan) But --

6 A Any other color would not be affected.

7 Q But orange --

8 A And when you say "other," you have to be
9 very careful how to decide -- how they decide each
10 color. Okay? If the orange is not defined as a red,
11 then it will not be affected.

12 Q Okay. So if I defined -- if I define --
13 okay.

14 So the color orange has red as a component,
15 right?

16 A But it -- has not -- every color might have
17 red as a -- as a base vector that measures into the
18 combination. The bottom thing is, is how the linear
19 combinations are defined.

20 Q Okay. So if the color orange in a video
21 display is defined such that it has a red component in
22 it, okay?

1 A Again, not -- not the implementation.

2 Q Not what?

3 A If, bearing to the issue, if we define the
4 colors as -- can be one color is orange -- is red, and
5 then define in explicit, nonmutual color as orange,
6 then the orange will not be affected. If the orange
7 happened to be part of the red, then the orange will
8 be affected. It's all -- all depends on the
9 definitions in what color is for every color.

10 Q Right. So that's what I'm asking. If you
11 have a display implemented in such a way that orange
12 is -- that orange includes red as a component --

13 A It's not a matter of a component. It a
14 matter of how far you define the spectrum of red to
15 include, to go far enough, and you contain the orange
16 in red, the orange is part of the red. It's a method
17 of definition. It's up to the inventor to define each
18 color, what it is. That's why I was so careful to say
19 colors and not pixels.

20 Q Okay. So it's possible to implement the
21 '012 Patent in a way where the definition of red
22 includes orange. So if I adjust red, I'm also

1 adjusting orange. Is that accurate?

2 MR. LEE: Object to form.

3 A If -- if you define red that is very wide,
4 define the orange as colors, then that's -- that's
5 omitted, yeah.

6 Q (By Mr. Holohan) Then that's what?

7 A That's what it implies.

8 Q And that implementation would fall within
9 the '012 Patent, right?

10 A Yes. Because the patent '012 or '435 do not
11 give the way to how to divide the colors. Where is
12 the line.

13 Q Okay. All right. So I want to skip over to
14 page 20 of your declaration, where you talk about the
15 term, Without affecting the hue or saturation of any
16 other individual color. Let me know when you have
17 that in front of you.

18 A I do.

19 Q Okay.

20 A I think we should take a break -- take a
21 break by now because it's an hour.

22 MR. HOLOHAN: Okay. That's fine. I thought

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1 I would get this done in an hour, but looks like
2 I have another 20 minutes or so. So we can take
3 a five-minute break.

4 THE WITNESS: Okay.

5 (Recess from 12:11 p.m. to 12:20 p.m.)

6 MR. HOLOHAN: All right. Let's go back on.

7 Q (By Mr. Holohan) Dr. Menczel, just talking
8 briefly about the claim of limitation. Without
9 affecting the hue or the saturation of any other
10 individual color which is from the '435 Patent,
11 similar to the '012 Patent, the term you were just
12 talking about, could I construct a system, according
13 to the '435 Patent, where the color red is defined
14 such that if I adjust the hue of red, I will also
15 adjust the hue of orange?

16 MR. LEE: Object to form.

17 A Exactly as we said before. If orange will
18 be defined as part of red in the perception and the
19 way you define the parameters in the '435 Patent, then
20 obviously when you change the color red as -- the
21 color that looks to you particularly orange will also
22 be affected.

1 Q Let me just ask.

2 A Dr. Richardson is saying it's not -- it's
3 not teaching us what the acceptable range will be.
4 Okay? So he's saying, it can be anything from a
5 single integer. He doesn't really get to the point
6 that we're talking about a range. He said, Single
7 integer to an infinite number within this -- he didn't
8 say boundaries. That was the problem with his
9 definition.

10 Q So does the patent give boundaries?

11 A He could have written -- could be anything
12 from an integer, one single integer to another. So
13 from one integer to another integer, where each
14 integer can be a single integer to an infinite number
15 to -- no, any -- so where each integer can be of
16 single value, with zero value, to an infinite value,
17 then I may agree. It's -- he's talking about a
18 number. He's talking single integer. He's talking
19 about infinite number of integers. He's not talking
20 about the range.

21 Q Okay. So when you say a range of integers,
22 would you agree that when the patent says -- the '435

1 Patent says arbitrary interval with integers, that
2 could be a range of zero to an infinite number of
3 integers?

4 MR. LEE: Objection. Form.

5 A I don't understand what infinite number of
6 integers means. I know integer has a value of
7 infinite. I don't understand what an infinite number
8 of integers in this context means.

9 Q (By Mr. Holohan) Well, let me ask you: In
10 your opinion, what is the upper limit on the range of
11 the interval of integers in the '435 Patent?

12 A Arbitrary.

13 Q So there's no upward limit on what the range
14 could be.

15 A Yes.

16 Q And it could be a -- it could be as small as
17 one integer or two, right?

18 A Again, the range -- you're talking about the
19 range size.

20 Q Yes.

21 A Okay. He didn't say the word "range size."

22 Q I'm asking for your opinion. How small can

1 the range be? Can it be one integer?

2 A Again, it could -- it's designed in whole
3 numbers. That's why he used the word "integers" here,
4 and it can be any number between zero to any arbitrary
5 number you want.

6 Q Okay.

7 A The size of the range.

8 Q Okay. Why do you say that the interval
9 between minus 1 and plus 1 in claim 6 of the '435
10 Patent contemplates fractions?

11 A Because that's how it appears in the patent.
12 If you look at the formula that he uses in '435, he
13 uses numbers between minus 1 and plus 1.

14 Q Where in the '435 Patent are you looking for
15 that?

16 A As an example, if you look at column 13.
17 Okay? Where he defined the value HR. The value of HR
18 is defined, I believe, internally between minus 1 to
19 plus 1. It should say somewhere, I think, because you
20 can see the formula. He uses 1 minus HR and then he
21 uses HR. Okay? Internally, when he calculates, he
22 uses a number between minus 1 to plus 1. In -- for

1 understand what everybody wants.

2 MR. TING: Yes, for Acer.

3 MR. LEE: I need to check with my client and
4 get back to you on that, Jason.

5 THE REPORTER: Very good.

6 MR. HOLOHAN: Yes for us.

7 (Deposition adjourned at 12:45 p.m.)

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1 REPORTER CERTIFICATE

2 I, JASON T. MEADORS, Registered Professional
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4

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